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**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Rolf **PFEIFER** and Jialin **SHEN**

Application No.: **10/826,582**

Filed: **April 16, 2004**

For: **CERAMIC CASTING MOLD FOR CASTING METAL AND  
PROCESS FOR PRODUCTION**

Attorney Docket No.: **3926.081**

Customer Number: **000041288**

**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. §1.97 and §1.98**

**Mail Stop Amendment**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure under 37 C.F.R. §1.56, Applicants hereby notify the U.S. Patent and Trademark Office of the following documents for the above-identified application. Copies of the documents set forth below and listed on the attached Form PTO-1449, are provided herewith.

1. European Patent No. 0 431 924 B1
2. World Patent Application No. 90/03893
3. German Patent No. 100 14 950 C1
4. German Patent Application No. 198 09 657 A1
5. European Patent Application No. 0 968 776 A1
6. World Patent Application No. 00/42471

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7. World Patent Application No. 99/42421
8. U.S. Patent No. 5,204,055
9. European Patent No. 1 058 675 B1

Documents 1, 2 & 8 are in the English language. The relevancy of the Non-English documents is explained below.

**Document 3**

Applicants are not aware of any English language document equivalent to or in the patent family of Document 3, other than an English language abstract which is attached below.

The document discloses a process for sintering green parts comprises surrounding the green part with a finely ground material which does not form a bond with the green part at the process temperature and sintering the part from below. The finely ground material is preferably sealed to avoid hollow chambers. The material is a ceramic powder.

**Document 4**

Applicants are not aware of any English language document equivalent to or in the patent family of Document 4, other than an English language abstract which is attached below.

The document discloses a ceramic component is produced from an intermediate ceramic product (15) formed by repeated resin infiltration and incomplete pyrolysis of polymer-bonded ceramic layers. A ceramic component production process comprises forming an intermediate product (15) by successive operations of producing a layer from a ceramic powder and polymeric binder

mixture, infiltrating with resin and then modifying the resin and the binder by pyrolysis to form pyrolysis residues which react with an infiltrate during a subsequent infiltration step to form ceramic material.

**Document 5**

Applicants are not aware of any English language document equivalent to or in the patent family of Document 5, other than an English language abstract which is attached below.

The document discloses a process for the rapid mfr. Of sand moulds and cores for use in foundries comprises: (i) forming the mould and/or core using stepwise structure; (ii) computer-controlled selective heating a thin, planar moulding material later using laser; (iii) repeating the selective radiating process for each freshly applied moulding material layer. The moulding material consists of: (a) a powdered, granular moulding base material from round, irregular moulded or angular splintery particles; and (b) a warm or hot hardenable binder. Component (a) is enclosed by component (b), or components (a) and (b) are mixed, and component (a) remains chemically inert during the above prodn. process.

**Document 6**

Applicants are not aware of any English language document equivalent to or in the patent family of Document 6, other than an English language abstract which is attached below.

The document discloses the invention concerns a pasty ceramic composition for making an element by fast prototyping,

containing at least a ceramic powder, at least a light-curing resin, at least a photoinitiator, optionally additives, characterized in the composition is capable of shear rate thinning and has a selected yield point. The invention is useful for making an element by fast prototyping.

**Document 7**

Document 9 is an English language document equivalent to or in the patent family of Document 7. An English language abstract is attached below.

The document discloses the invention concerns a fast prototyping method by solid phase sintering, using a laser, of a powder or a mixture of powders, in particular ceramic. The invention is characterized in that it comprises steps which consist in obtaining a succession of superposed digitized section (10) of an object (12) to be produced, from a three-dimensional representation of said object; then in spreading in the form of a fine layer (14) the powder or mixture of powders heated to a temperature close to solid phase sintering temperature of said powder or mixture of powders; and finally in bringing the later (14) to the sintering temperature by scanning with a laser beam (16) said layer such that a selected part (18) of the powder, corresponding to one of the digitized sections (10') of the object (12) to be produced, is sintered in solid phase by the additional energy supplied by the laser, the last two steps being repeated until all the digitized superposed sections of the object to be produced are obtained. The invention also concerns the associated device.

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**Document 9**

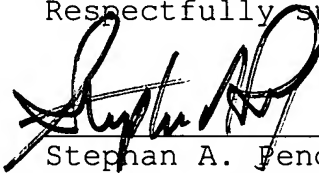
Document 9 is a Patent Family Member of Document 7.

The present Information Disclosure Statement is being filed after three months from the application's filing date and before the mailing date of the first Office Action on the merits, therefore no Certification Under 37 C.F.R. §1.97(e) or fee under 37 C.F.R. §1.17(p) is required.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant does not waive any right to take any action that would be appropriate to antedated or otherwise remove any listed document as a competent reference against the claims of the present application.

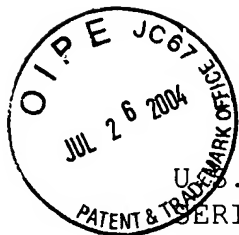
Applicant respectfully requests that the listed documents be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO-1449 be returned in accordance with MPEP §609.

Respectfully submitted,

  
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Dated: **July 22, 2004**



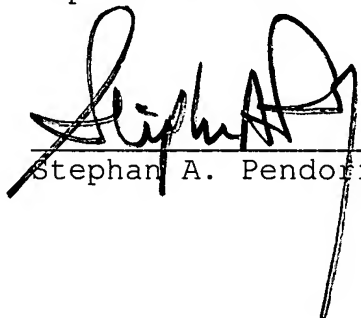
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**CERTIFICATE OF MAILING AND AUTHORIZATION TO CHARGE**

I hereby certify that the foregoing INFORMATION DISCLOSURE STATEMENT Form PTO-1449, including nine (9) documents, for U.S. Application No. 10/826,582 filed April 16, 2004, were deposited in first class U.S. mail, postage prepaid, P.O. Box 1450, Alexandria, VA 22313-1450, on **July 22, 2004**.

The Commissioner is hereby authorized to charge any additional fees which may be required at any time during the prosecution of this application without specific authorization, or credit any overpayment, to Deposit Account No. 16-0877.

  
Stephan A. Pendoff

**INFORMATION DISCLOSURE CITATION***(Use several sheets if necessary)*

Docket Number (Optional)

3926.081

Application Number

10/826,582

Applicant(s)

Rolf Pfeifer et al.

Filing Date

4/16/2004

Group Art Unit

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

**FOREIGN PATENT DOCUMENTS**


	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO
		0 431 924 B1	1/31/1996	Europe	B29C	39/42	✓	
		90/03893	4/19/1990	World	B44C	1/22	✓	
		100 14 950 C1	5/3/2001	Germany	B22F	3/10		✓
		198 09 657 A1	9/9/1999	Germany	C04B	35/622		✓
		0 968 776 A1	1/5/2000	Europe	B22C	1/00		✓

**OTHER DOCUMENTS** *(Including Author, Title, Date, Pertinent Pages, Etc.)*


EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<div style="text-align: center;">  <p><b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)</p> </div>	<b>Docket Number (Optional)</b> 3926.081	<b>Application Number</b> 10/826,582
	<b>Applicant(s)</b> Rolf Pfeifer et al.	
	<b>Filing Date</b> 4/16/2004	<b>Group Art Unit</b>

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		5,204,055	4/20/1993	Sachs et al.	B22F	7/02	

**FOREIGN PATENT DOCUMENTS**

REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO
	00/42471 A1	7/20/2000	World	G03C	9/08		✓
	99/42421 A1	8/26/1999	World	C04B	35/64		✓
	1 058 675 B1	9/10/2003	Europe	C04B	35/64		✓

**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)


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